## **EAST Search History**

## EAST Search History (Prior Art)

| Ref # | Hits     | Search Query  | DBs  | Default<br>Operator | Plurals | Time Stamp          |
|-------|----------|---|--|---------------------|---------|---------------------|
| S1    | 20       | (("5158005") or<br>("20030065250") or<br>("3976057") or<br>("1928368") or<br>("1340846")).PN.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR                  | OFF     | 2009/04/02<br>08:12 |
| 25    | 2        | ("20070129653").PN.   | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR                  | OFF     | 2009/04/02<br>08:30 |
| SS    | 3269     | actuator with spring with sleeve  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR                  | ON      | 2009/04/02<br>12:32 |
| S4    | 101      | air with actuator with spring with sleeve   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR                  | ON      | 2009/04/02<br>12:33 |
| S5    | 15405951 | S3 and "601"/.cc.s  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR                  | ON      | 2009/04/02<br>12:33 |
| S6    | 2        | S3 and "601"/.ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR                  | ON      | 2009/04/02<br>12:33 |
| S7    | 86       | ("0767008"   "2058563"   "2068578"   "2179903"   "219073"   "2285563"   "22965905"   "2966905"   "3006632"   "3174343"   "3346877"   "3351156"   "33689403"   "3387843"   "3471145"   "3531112"   "3659846"   "3471419"   "3683897"   "3817432"), PN. OR ("3976057"), UPFN. | US-PCPUB;<br>USPAT; USOCR                                      | OR                  | ON      | 2009/04/02          |
| S8    | 1259     | finger with actuator with pivot   | US-PGPUB;<br>USPAT; USOCR                                      | OR                  | ON      | 2009/04/02<br>13:04 |
| S9    | 25       | finger with actuator with pivot with hydraulic  | US-PGPUB;<br>USPAT; USOCR                                      | OR                  | ON      | 2009/04/02<br>13:04 |

| S10 | 2  | S8 and "601"/.cdls.  | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2009/04/02<br>13:04 |
|-----|----|--|--|----|-----|---------------------|
| S11 | 36 | ("3631542"   "3756222"  <br>"3871646"   "4538595"  <br>"4576148"   "4644938"  <br>"465900"   "4679548"  <br>"4724827").PN. OR<br>("4875469").URPN.   | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2009/04/02<br>13:05 |
| S12 | 2  | ("5159005").PN.  | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2009/11/09<br>13:18 |
| S13 | 2  | ("5158005").PN.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2009/11/09<br>13:19 |
| S14 | 22 | (("5158005") or<br>("20030065250") or<br>("3976057") or<br>("1928368") or<br>("1340846") or<br>("4875469")).PN.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/02/22<br>13:17 |
| S15 | 31 | (McKibben with artificial with muscles)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>13:48 |
| S16 | 15 | ("4176662"   "4281646"  <br>"4690131"   "5090259"  <br>"5144848"   "5662587"  <br>"5810717"   "6007482").<br>PN. OR ("6764441").<br>URPN.  | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>13:52 |
| S17 | 7  | (McKibben with spring)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>13:55 |
| S18 | 87 | ["0767008"   "2068563"   "2068578"   "2179903"   "2180173"   "2825563"   "2966905"   3000632"   "3117786"   "3174343"   "3346877"   "3351156"   "3369403"   "3387443"   "3406406"   "3471145"   "36383897"   "3814419"   "3837432")   PN. OR ("3976057") UPPN. | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>14:00 |

| S19 | 71  | knee with foot with actuators!   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:01 |
|-----|-----|--|--|----|-----|---------------------|
| S20 | 148 | 601/5.cds.   | USPAT  | OR | ON  | 2010/02/22<br>14:02 |
| S21 | 4   | ("4615260"   "4733603"  <br>"4751869"   "5662693").<br>PN. OR ("7299741").<br>URPN.  | US-PGPUB;<br>USPAT; USOOR                                      | OR | ON  | 2010/02/22<br>14:03 |
| S22 | 79  | knee with ankle with actuators!  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:06 |
| S23 | 2   | knee with (brace) with<br>(foot ankle) with<br>actuators!  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:10 |
| S24 | 183 | 602/28.cds.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:11 |
| S25 | 25  | (**0830894"   "1638285"  <br>"3976059"   "4735196"  <br>"4913135"   "4919118"  <br>"5014690"   "5195947"  <br>"5224925").FP\. OR<br>(**5542912").URP\. | US-PGPUB;<br>USPAT; USOCR                                      | OR | JON | 2010/02/22<br>14:13 |
| S26 | 4   | ("1638285").URPN.  | USPAT  | OR | ON  | 2010/02/22<br>14:16 |
| S27 | 53  | ankle with actuators!  | USPAT  | OR | ON  | 2010/02/22<br>14:31 |
| S28 | 10  | ("4557257"   "4697808"  <br>"4711242"   "4760850"  <br>"5020790"   "5054476"  <br>"5476441"   "5961542").<br>PN. OR ("7190141").<br>URPN.              | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>14:39 |
| S29 | 25  | ("0830894"   "1638285"  <br>"3976059"   "4735196"  <br>"4913135"   "4919118"  <br>"5014690"   "5195947"  <br>"5224925").FN. OR<br>("5542912").URPN.    | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>14:43 |
| S30 | 6   | knee with (brace) with<br>(foot ankle) with<br>actuators   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:43 |

| S31         | 312 | knee with (foot ankle)<br>with actuators   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:44 |
|-------------|-----|--|--|----|-----|---------------------|
| S32         | 16  | S31 and "601"/.cds.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:44 |
| S33         | 14  | S31 and "602"/.cds.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:44 |
| S34         | 29  | S32 S33  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>14:45 |
| <b>S3</b> 5 | 2   | ("6602217").URPN.  | USPAT  | OR | ON  | 2010/02/22<br>14:51 |
| S36         | 24  | ("2439100"   "2525237"  <br>"2536454"   "2874690"  <br>"3859991"   "4329982"  <br>"5112296").PN. OR<br>("5382224").URPN.   | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>14:53 |
| S37         | 15  | ("3304937").URPN.  | USPAT  | OR | ON  | 2010/02/22<br>14:55 |
| S38         | 17  | ("2531486").URPN.  | USPAT  | OR | ON  | 2010/02/22<br>14:56 |
| S39         | 31  | ["1402282"   "2531486"  <br>"2536454"   "2584010"  <br>"3527202"   "3527209"  <br>"3713437"   "3741203"  <br>"3986501"   "4102337"  <br>"429982"   "4566447"  <br>"4790300"   "4817589"  <br>"4949711"   "4955370"  <br>"5138478"),N. OR ("5277699"),UHPN. | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>14:58 |
| S40         | 2   | ("5158005").PN.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/02/22<br>15:10 |
| S41         | 4   | ("4615260"   "4733603"  <br>"4751869"   "5662693").<br>PN. OR ("7299741").<br>URPN.  | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON  | 2010/02/22<br>15:11 |

| S42 | 7   | (McKibben with spring)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>15:12 |
|-----|-----|--|--|----|-----|---------------------|
| S43 | 299 | (McKibben and spring)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>15:12 |
| S44 | 50  | (McKibben and spring)<br>and actuator  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>15:12 |
| S45 | 52  | S42 S44  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>15:12 |
| S46 | 10  | (("5,474,485") or<br>("5,351,602") or<br>("5,185,932") or<br>("5,021,064") or<br>("4,739,692")).PN.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/02/22<br>15:17 |
| S47 | 1   | S46 and spring   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/22<br>15:18 |
| S48 | 100 | ("0499193"   "0536512"   "0712601"   "2047377"   "2330138"   "2373455"   "2483088"   "2373455"   "2483088"   "2489799"   "2544119"   "2545847"   "2549119"   "2578854"   "2696010"   "2698499"   "2704556"   "2733506"   "2844126"   "3662405"   "38205190"   "3687233"   "3830519"   "366405"   "3830519"   "366405"   "3409381"   "366405"   "4109381"   "436554"   "4109381"   "436554"   "4393821"   "436854"   "4393922"   "4369814"   "439393"   "4739692"   "4751868"   "470148"   "4751868"   "476045"   "4784947"   "4841845"   "478418547"   "4841845"   "5104300"   "500297"   "5104346"   "5129279") | US-RGPUB;<br>USPAT; USOOR                                      | OR | ON  | 2010/02/22<br>15:20 |

|     |     | PN. OR ("4739692"  <br>"5021064"   "5185932"  <br>"5351602"   "5474485").<br>URPN.  |  |    |  |                     |
|-----|-----|---|--|----|--|---------------------|
| S49 | 42  | S48 and spring  | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON                                     | 2010/02/22<br>15:21 |
| S50 | 2   | ("20070129653"). PN.  | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF                                    | 2010/02/22<br>15:39 |
| S51 | 162 | muscle with spring with adjust\$4   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON                                     | 2010/02/22<br>15:40 |
| S52 | 5   | S51 and "601"/.cdls.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON                                     | 2010/02/22<br>15:48 |
| S53 | 955 | muscle and spring with adjust\$4 with tension   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON                                     | 2010/02/22<br>15:49 |
| S54 | 71  | S53 and "601"/.cds.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON                                     | 2010/02/22<br>15:49 |
| S55 | 157 | (orthotic orthosis brace)<br>with spring with adjust\$4<br>with tension   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON                                     | 2010/02/22<br>15:53 |
| S56 | 25  | (*0830894"   "1638285"  <br>"3976059"   "4735196"  <br>"4913135"   "4919118"  <br>"5014690"   "5195947"  <br>"5224925").FN. OR<br>(*5542912").URPN. | US-PGPUB;<br>USPAT; USOCR                                      | OR | ON                                     | 2010/02/22<br>16:04 |
| S57 | 25  | ("2477591"   "2516872"  <br>"3064644"   "4485808"  <br>"4657000"   "4771768"  <br>"4834078"   "4934355").<br>PN. OR ("5014690").<br>URPN.           | US-PGPUB;<br>USPAT; USOCR                                      | OR | VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | 2010/02/22<br>16:05 |
| S58 | 5   | (("4922901") or<br>("3842828")).PN.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF                                    | 2010/02/22<br>16:16 |

| S59 | 8  | (("2536454") or<br>("4739692") or<br>("6067892")).PN.  | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/02/24<br>08:08 |
|-----|----|--|--|----|-----|---------------------|
| 960 | 31 | [US-20030065250-\$ or US-20050028237-\$ or US-20050028237-\$ or US-20070129653-\$) did. or (US-3376057-\$ or US-1928368-\$ or US-4875469-\$ or US-6764441-\$ or US-6764441-\$ or US-61488245-\$ or US-61488245-\$ or US-5542912-\$ or US-5542912-\$ or US-539454-\$ or US-539454-\$ or US-539454-\$ or US-539454-\$ or US-539454-\$ or US-539254-\$ or US-2331456-\$ or US-2331456-\$ or US-2439100-\$ or US-5158005-\$ or US-6168634-\$ or US-6168634-\$ or US-6168634-\$ or US-6168634-\$ or US-6168634-\$ or US-527699-\$ or US-61580759-\$ or US-5645521-\$ or US-5645521 | US-RGPUB;<br>USPAT; USOCR                                      | ОЯ | ON  | 2010/02/24<br>08:12 |
| S61 | 9  | S60 and (drag drop)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/24<br>08:13 |
| S62 | 0  | S60 and (mckisson and walk\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/24<br>08:14 |
| S63 | 0  | S60 and (mckesson and walk\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/24<br>08:14 |
| S64 | 0  | S60 and (mckibbon and walk\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/24<br>08:14 |

| S65 | 2  | S60 and (mckibben and walk\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/02/24<br>08:14 |
|-----|----|---|--|----|-----|---------------------|
| S66 | 8  | (("2536454") or<br>("4739692") or<br>("6067892")).PN.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>08:18 |
| S67 | 15 | ("2536454").URPN.   | USPAT  | OR | ON  | 2010/08/12<br>08:25 |
| S68 | 0  | (actuator (artifucial adj<br>muscle)) with kneee with<br>foot   | USPAT  | OR | ON  | 2010/08/12<br>08:27 |
| S69 | 0  | (actuator (artificial adj<br>muscle)) with kneee with<br>foot   | USPAT  | OR | ON  | 2010/08/12<br>08:27 |
| S70 | 0  | (actuator (artificial adj<br>muscle)) and kneee with<br>foot  | USPAT  | OR | ON  | 2010/08/12<br>08:27 |
| S71 | 83 | (actuator (artificial adj<br>muscle)) with knee with<br>foot  | USPAT  | OR | ON  | 2010/08/12<br>08:27 |
| S72 | 49 | ("200200949") "  "20020188673"   "20020188673"   "2003008308"   "20030082241"   "20030093021"   "20030115031"   "20030115031"   "20030146620"   "2003012356"   "20040049290"   "2004005423"   "20040064195"   "20040064195"   "20040064195"   "20050070834"   "3358678"   "3969773"   "4628916"   "4711242"   "5358678"   "5133773"   "5144943"   "5525102"   "55872612"   "5772619"   "55872612"   "5772619"   "5587261"   "5772619"   "5782172"   "5772619"   "5888212"   "5954678"   "5981541"   "6080123"   "6113642"   "6117097"   "61171272"   "6174294"   "6379393"   "6471664"   "6500138"   "6517503"   "6884752")   LPN. OR ("7578799")   LPPN. | US-PGPUB;<br>USPAT; USOOR                                      | ЮR | ON  | 2010/08/12<br>08:29 |

| S73 | 2     | ("5158005").PN.                                | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>08:53 |
|-----|-------|--|--|----|-----|---------------------|
| S74 | 2     | (*20030065250*).PN.                            | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>08:58 |
| S75 | 6     | mckibben with (actuator<br>muscle) with spring | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/08/12<br>09:00 |
| S76 | 5     | (("2000078381") or<br>("6192886")).PN.         | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>09:17 |
| S77 | 5     | ("2004022147").PN.                             | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>09:19 |
| S78 | 3     | ("2000078381").PN.                             | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>09:26 |
| S79 | 2     | ("20080047561").PN.                            | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>09:42 |
| S80 | 0     | bafile with vent with spacer                   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/08/12<br>09:48 |
| S81 | 49    | baffle with vent with spacer                   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/08/12<br>09:48 |
| S82 | 59250 | *128"/.ccls. vent with<br>spacer               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/08/12<br>09:52 |
| S83 | 0     | "128"/.ccls. and ]vent<br>with spacer          | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | OR | ON  | 2010/08/12<br>09:52 |

| S84 | 37 | "128"/.ccls. and vent with spacer   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2010/08/12<br>09:52 |
|-----|----|---|--|----|-----|---------------------|
| S85 | 9  | ("2313999").PN.   | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/12<br>10:02 |
| S86 | 8  | (("5961541") or<br>("6478652") or<br>("20030065250") or<br>("5158005")).PN.               | US-PGPUB;<br>USPAT; USOOR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2010/08/16<br>15:24 |
| S87 | 10 | (("5961541") or<br>('6478652") or<br>("4739692") or<br>("6067892") or<br>("5158005")).PN. | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2011/01/25<br>08:22 |
| S88 | 2  | ("20030065250"). PN.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT             | OR | OFF | 2011/01/25<br>08:40 |

## EAST Search History (Interference)

## 1/27/2011 11:22:32 AM

C:\ Documents and Settings\ kmatter\ My Documents\ EAST\ Workspaces\ 10554415 muscle actuator.wsp

<sup>&</sup>lt; This search history is empty>